AUTHORS' INDEX

VOLUME 121

(*The numerals indicate the page*)

Abraham, S. 478.
Ackerman, G. A. 1300.
Ahmad-Zadeh, C. 405.
Alexander, N. 766.
Alford, R. H. 240.
Altera, K. P. 157.
Amos, S. M. 1001.
Anderson, J. M. 205.
Anthony, A. 1256.
Antoniades, H. N. 880.
Antunes-Rodrigues, J. 8.
Aoki, S. 230.
Appleman, R. M. 1094.
Arase, M. 864.
Arimura, G. K. 327.
Armstrong, W. McD. 1280.
Arnold, A. 122.
Aston, R. 623.
Astrup, T. 139.
Athens, J. W. 1085.
Atkins, E. 943.
Atoynatan, T. 562.
Aust, J. B. 1133.
Axelrod, J. 267.
Axelrod, L. R. 1184.

Baeder, D. H. 1184.
Baker, D. G. 1275.
Baker, H. 27.
Ballard, K. W. 932.
Banerjee, S. 12.
Bang, F. B. 829, 966.
Banks, P. A. 240.
Barbour, A. M. 124.
Barbour, B. H. 124.
Baron, S. 50, 630, 670.
Barron, A. L. 307.
Barrow, E. M. 1001.
Bartley, J. C. 478.
Barton, J. R. 209.
Battifora, H. A. 1130.
Baum, J. 638.
Bavetta, L. A. 1052.
Baxter, B. L. 1075.
Bearn, A. G. 846, 1207.
Beasley, A. R. 1169.
Becker, F. F. 1155.
Becker, R. V. 695.
Beem, M. O. 205.
Ben-David, M. 873.
Benditt, E. P. 864.
Berg, B. N. 198.
Berry, L. J. 298.
Better, O. S. 592.
Beutner, E. H. 1082.
Bleicher, S. J. 980.
Blount, D. H. 560.
Bodel, P. 943.
Boehlke, K. W. 85, 88.
Boggs, D. R. 1085.
Boltax, A. J. 580.
Bongiovanni, A. M. 757.
Bonorris, G. 1122.
Borman, G. 1196.
Bornside, G. H. 551.
Bornstein, D. L. 677.
Bowman, R. E. 986.
Bowers, C. Y. 718, 726.
Bowman, R. E. 986.
Boyd, J. 1045.
Brandt, J. L. 876.
Braun, W. 449, 1228.
Bray, G. A. 330.
Brecher, G. 709.
Briggs, A. H. 274.
Briggs, G. M. 472.
Brittin, G. M. 709.
Brown, M. S. 989.
Brown, R. R. 253.
Brown, W. J. 259.
Bruckner-Kardoss, E. 1111.
Bryan, E. 1216.
Buecher, E. J., Jr. 390.
Bueker, E. D. 1135.
Buffett, R. F. 970.
Bunde, D. E. 664.
Burnett, W. F. 1103.
Byrne, A. F. 958, 961.

Campbell, T. C. 1283.
Carmena, A. 652.
Carnevali, C. 652.
Cartwright, G. E. 1085.
Cascarano, J. 619.
Cavallaro, J. J. 37.
Cavanaugh, P. J. 32.
Chaikoff, I. L. 478.
Chan, P.-C. 793.
Chang, Y.-O. 524.
Chaparas, S. D. 734.
Chapman, L. C. 592.
Chauncey, H. H. 130.
Chavin, W. 497.
Chen, Y. M. 497.
Chernoff, H. N. 396.
Chesley, G. 340.
Chick, W. L. 619.
Choitz, H. C. 346.
Chowdhury, A. R. 899.
Chowdhury, S. R. 899.
Chowers, I. 8.
Christiansen, R. G. 122.
Claman, H. N. 236.
Clegg, M. T. 482, 785.
Clem, L. W. 1169.
Clemmer, T. P. 800.
Cohn, I., Jr. 551.
Cole, L. J. 1120.
Collipp, P. J. 171, 173.
Colton, F. B. 1194.
Conant, R. M. 307.
Congdon, C. C. 286.
Cook, H. 505.
Corcoran, J. B. 685.
Costea, N. 812.
Coverdale, G. M. 1122.
Craig, A. B., Jr. 281.
Cremer, N. E. 648.
Critz, J. B. 101.
Cruse, J. M. 833.

Dale, B. N. 425.
D'Angelo, S. A. 555.
Danton, R. A. 270.
Das Gupta, B. R. 685.
DasGupta, P. R. 899.
Davidson, W. D. 545.
Davis, J. O. 1058.
Davis, W. H. 1212.
DeCuir, M. 766.
deFritsch, N. M. 569.
Delmonte, L. 1231.
De Plaen, J. 501.
Dessypris, A. 1128.
Dhariwal, A. P. S. 8, 996.
Diderholm, H. 976.
Dienes, L. 334.
Dikstein, S. 873.
Dill, R. E. 911.
Dinter, Z. 976.
Dixon, F. J. 216.
Domingue, G. J. 133.
Donald, D. E. 626.
Donati, R. M. 1152.
Dorfman, R. I. 1128.
Douglas, J. D. 824.
Dowdle, W. R. 193.
Drosdowsky, M. A. 1128.
DuBois, Kenneth P. 59.
Ducommun, P. 921.
Duhamel, L. 714.
Dukelow, W. R. 396.
Dulin, W. E. 777.
Dumont, A. E. 1.

Earley, L. E. 352.
Eaves, G. N. 298.
Ebner, K. E. 685.
Eckert, E. A. 1223.
Eleftheriou, B. E. 85, 88, 374.
Elliott, H. C. 861.
Elton, R. L. 1194.
Elwyn, D. 982.
Emmers, R. 527.
Entenman, C. 923.
Evans, E. E. 1158.

Farber, L. 980.
Fariduddin, K. M. 1280.
Feller, D. D. 223.
Feller, R. P. 130.
Felsenfeld, O. 425.
Fenton, P. F. 343.
Ferguson, D. 626.
Ferguson, J. H. 788.
Fesche, H. 235.
Finch, S. C. 441.

Firschein, H. E. 844.
Fischman, H. R. 966.
Fisher, E. R. 142.
Fletcher, R. D. 68.
Fluckiger, H. B. 153.
Foà, P. P. 55, 608.
Fogel, B. J. 186.
Forbes, M. 65, 68.
Fox, M. 374.
Franker, C. K. 1090.
Franklin, D. S. 708.
Franks, J. J. 322.
Freedman, H. H. 1228.
French, S. W. 681.
Friedlander, R. 580.
Friedler, R. M. 352.
Friedman, L. 1283.
Friedmann, J. A. 444.
Friend, C. 1009.
Fulginiti, V. A. 109.
Fuller, V. J. 734.

Gaebler, O. H. 346.
Gaja, G. 608.
Galambos, J. T. 743.
Galansino, G. 501.
Gallagher, N. I. 1152.
Gallo, D. G. 1244.
Gehrke, J. 209.
Gerritsen, G. C. 777.
Gershoff, S. N. 227, 880.
Gertler, M. M. 657.
Ghidoni, A. 1039.
Giannina, T. 1175.
Gilbert, E. F. 831.
Gilder, H. 913.
Ginn, F. L. 1200.
Girardi, A. J. 428.
Gitlin, J. 739.
Glickman, I. 1294.
Glimcher, M. J. 869.
Gluck, L. 562.
Goldberg, N. 876.
Goldhaber, P. 869.
Goldman, A. S. 757.
Goldner, M. G. 980.
Goldstein, H. B. 425.
Gonick, H. C. 592.
Goodheart, C. 173.
Goodman, H. M. 5.
Goodman, H. O. 212.
Gordon, A. 577.
Gordon, A. S. 793.
Gordon, R. S. 675.
Gordon, S. 846.
Grace, J. T., Jr. 933, 970.
Graham, J. B. 1001.
Grande, F. 1107.
Greenberg, L. J. 1120.
Greenberg, R. 1179.
Greene, M. A. 580.
Gross, J. 1047.
Grossman, M. I. 840.
Grosvenor, C. E. 366.
Groves, W. G. 989.
Grunberg, E. 941.
Gryboski, J. D. 441.
Guidotti, G. G. 608.
Guillemin, R. 921.
Gustafsson, B. 699.
Guthrie, R. G. 657.
Guttman, H. N. 523, 1140.
Gyermek, L. 386.

Hadjigeorge, C. G. 580.
Hahn, D. W. 1056.
Halcy, J. E. 709.
Hall, H. D. 96.
Hall, I. H. 32, 34, 1203.
Hallenbeck, G. A. 468, 1094.
Halsband, E. R. 130.
Hamilton, W. H. 954.
Hamlin, M. 597.
Hammond, C. W. 958, 961.
Hamre, D. 190.
Han, I. H. 782.
Han, S. S. 782.
Hanahoe, M. F. 1268.
Hankes, L. V. 253.
Hanna, M. G., Jr. 286.
Hansen, E. 390.
Hanson, R. W. 343.
Hardy, J. L. 402.
Hare, J. D. 774.
Harms, R. H. 633.
Harper, A. 489.
Harper, A. E. 695.
Harris, C. 1241, 1242.
Harrison, H. C. 312.
Harrison, H. E. 312.
Hart, D. W. 444.
Hass, G. M. 1130.
Hathcock, J. N. 908.
Hauck, A. L. 272.
Hayama, T. 278.
Hayward, J. N. 547.
Hazen, S. P. 1082.
Heindel, C. 1001.
Heller, P. 812.
Hempstock, E. V. 772.
Heninger, R. W. 691.
Henson, D. 209.
Herman, E. H. 272.
Herold, F. S. 536.
Herriot, S. J. 929.
Hershberger, L. G. 785.
Hertelendy, F. 675.
Herz, F. 536.
Hiatt, N. 1122.
Hill, J. 124.
Hill, R. B. 1287.
Hilleman, M. R. 377, 428, 1264.
Hiramoto R. 597.
Hirooka, T. 743.
Hirsch, R. L. 569.
Hirschfield, J. E. 68.
Hisley, J. C. 235.
Ho, M. 181.
Hofert, J. F. 532.
Hoffbauer, F. W. 918.
Hollis, V. W., Jr. 104.
Holtz, A. 1196.
Hook, W. A. 186.
Horino, M. 675.
Hove, E. L. 850.
Howze, G. B. 1010, 1016.
Hsiung, G. D. 562.
Huber, A. M. 227.
Huber, M. 240.
Huebner, R. J. 41.
Huser, H.-J. 111, 116.
Hyman, C. 932.
Hyslop, N. E. 508.
Hyslop, N. E., Jr. 514.

Iatridis, P. G. 788.
Iatridis, S. G. 788.
Irving, J. T. 1031.
Isakovic, K. 1005.
Isselbacher, K. J. 322.

Jacobson, E. D. 840.
Jaskiel, L. D. 130.
Jepson, J. 1077.
John, T. J. 109.
Johnson, A. G. 782.
Johnson, B. C. 30, 1287.
Johnson, K. M. 615.
Johnson, L. R. 384.
Johnston, C. I. 1058.
Jurist, J. M. 150.

Kajima, M. 585.
Kalant, N. 438.
Kaplan, E. 536.
Kaplan, S. A. 171, 173.
Kar, A. B. 899.
Kasel, J. A. 240.
Katzen, R. 923.
Ke, Y. H. 181.
Keast, D. 90.
Keily, D. 137.
Kessel, R. W. I. 449.
Kessler, J. I. 876.
Kimball, A. P. 929.
King, J. S., Jr. 212.
Kinoshita, F. 59.
Kinoshita, Y. 902.
Kipnis, D. M. 675.
Kirschstein, R. L. 486.
Kite, J. H., Jr. 888.
Kleeman, C. R. 592.
Klein, H. Z. 142.
Klein, R. L. 539.
Klemm, W. R. 635.
Klimstra, P. D. 1194.
Kline, D. L. 184.
Kling, J. M. 633.
Knight, V. 240.
Knowlton, F. 88.
Koch-Weser, D. 541.
Kolb, R. W. 734.
Kolen, C. A. 1179.
Kolmen, S. N. 642.
Komatsu, S. 1028.
Konturek, S. J. 840.
Kopelovich, L. 478.
Kosin, I. L. 795, 1188.
Kragt, C. L. 805.
Krantz, E. 422.
Kratzer, F. H. 422.
Kritchevsky, D. 1162.
Kritzman, J. 489.
Krulich, L. 1114.

Kruse, P. F., Jr. 1220.
Kuebler, W. J., II. 551.
Kueppers F. 1207.
Kumaresan, P. 752.
Kummerow, F. A. 294.

LaBerge, D. E. 458, 463.
Lagunoff, D. 864.
Laing, G. H. 1130.
Lakhanpal, R. K. 472.
Lampson, G. P. 377.
Lanchantin, G. F. 444.
Larson, V. M. 428.
Laqueur, G. L. 417.
Leagus, M. B. 1264.
Leak, P. J. 90.
Leevy, C. M. 27.
Lefer, A. M. 1103.
Lefton, F. 1047.
Legler, D. W. 1158.
Leitch, G. J. 1253.
Lemmi, C. A. E. 545.
Lennette, E. H. 1268.
LePage, G. A. 929.
Leveille, G. A. 816, 1125.
Levin, R. J. 1033.
Levine, S. 301, 1041.
Levinthal, J. D. 405.
Levy, H. B. 53, 630.
Lewis, A. 980.
Lewis, G. T. 349.
Li, C. P. 1196.
Lichtenstein, L. M. 808.
Liebelt, R. A. 1231.
Lieber, C. S. 147.
Lincicome, D. R. 566.
Lindh, H. F. 65.
Lino, L. 748.
Lish, P. M. 494.
Liu, O. C. 601.
LoBue, J. 793.
Lockett, M. F. 937.
Logan, G. B. 394.
Loreti, L. 608.
Lowenstein, L. 1077.
Lucarelli, G. 652.
Lukin, L. 703.
Lund, P. G. 1070.
Lundberg, W. O. 82.
Lustig, G. A. 580.

McAuliff, J. P. 122.
McCabe, W. R. 230.
McCann, S. M. 8, 996, 1114.
McCarty, M. 1300.
McCreary, P. A. 1130.
McDaniel, E. G. 417.
McDonald, P. G. 482.
McKerlie, M. L. 50.
McKinney, G. R. 494.
McNiven, N. L. 1128.
McPhillips, J. J. 399.
MacGillivray, M. 648.
Maassab, H. F. 37.
Machlin, L. J. 675.
Madoff, S. 334.
Mahadevan, V. 82.
Maletta, G. J. 1210.
Mallett, M. 1052.
Malmgren, R. A. 486.
Mann, D. L. 1152.
Marcus, C. S. 885.
Marcus, S. M. 853.
Martelli, A. B. 1.
Martin, E. J. 1063.
Martin, W. G. 414.
Mascoli, C. C. 1264.
Matsuda, I. 438.
Mattis, P. A. 1045.
May, J. 963.
Medearis, D. N., Jr. 819.
Meites, J. 805.
Meli, A. 1175.
Melnykovych, G. 165.
Merigan, T. C. 50, 53.
Merkel, M. 230.
Metzler, F., Jr. 374.
Michaelis, M. 1028.
Midtvedt, T. 699.
Miedema, E. 1220.
Milgrom, F. 307, 433.
Miller, J. K. 291.
Miller, M. J. 357.
Miller, T. C. 122.
Millichap, J. G. 754.
Millichap, P. A. 754.
Mills, B. G. 1052.
Mirand, E. A. 933, 970.
Mitchell, C. L. 857.
Monette, F. C. 793.
Montgomery. O. L. 475.
Monto, A. S. 615.
Moody, F. G. 913.
Moraski, R. 838.
Morgan, C. R. 62.
Moser, K. 30.
Mosier, H. D., Jr. 573.
Moulton, J. E. 157.
Mulay, A. S. 1067.
Mulholland, J. H. 1.
Muller, S. A. 844.
Murakami, K. 657.
Murphy, B. L., 601.
Muth, O. H. 780.
Myerson, R. M. 1065.

Nagaya, H. 722.
Najarian, J. S. 963.
Nakano, M. 1228.
Narang, G. D. 203.
Neal, A. 1250.
Neilson, C. F. 363.
Nelson, B. D. 566, 998, 1256.
Nelson J. B. 1009.
Nelson, T. K. 954.
Nemes, M. M. 377.
Neter, E. 133.
Neuhaus, O. W. 894.
Neville, E. D. 223.
Newcomer, W. S. 691.
Newman, J. 386.
Nezamis, J. E. 992.
Ning, M. 27.
Nishimura, H. 455.
Noble, R. E. 541.
Noel, J. K. 824.
Nordskog, A. W. 137.
Norrby, E. 948.
Nyhan, W. L. 270.

O'Connell, C. J. 433.
O'Connor, W. B. 612.
Oldfield, J. E. 780.
O'Neill, S. 1117.
Ontko, J. A. 319.
Osborn, J. E. 819.
Osler, A. G. 808.

Panda, J. N. 803, 1239.
Pande, J. K. 899.
Pandolfi, M. 139.
Papadimitriou, J. M. 93.
Parisi, J. T. 259.
Pascal, T. A. 739.
Patek, A. P., Jr. 569.
Patrick, H. 414.
Patrick, J. R. 173.
Patuleia, M. C. 1009.
Paul, F. 1287.
Perkins, E. G. 294.
Perlmutt, J. H. 177.
Persellin, R. H. 638.
Peterson, D. W. 954.
Pfaffman, M. A. 539.
Phillips, J. P. 992.
Phillips, T. L. 161.
Pinkel, D. 72.
Pistey, W. R. 831.
Plagemann, P. G. W. 1142, 1147.
Plescia, O. J. 449.
Plesset, M. L. 444.
Poland, J. L. 560.
Pollard, M. 585.
Popken, F. E. 262.
Porter, R. J. 107.
Posner, A. S. 844.
Postic, B. 181.
Potts, G. O. 122.
Pozza, G. 1039.
Price, F. W. 933.
Price, S. 55.
Prince, H. N. 941.
Procknow, J. J. 190.

Quay, W. B. 946.
Quilligan, J. J., Jr. 1090.

Rabin, B. S. 888.
Rabinowitz, J. L. 1065.
Rabson, A. S. 486.
Rachmilewitz, M. 1047.
Rackis, J. J. 1235.
Ragnotti, G. 608.
Ramey, E. R. 104.
Ramp, W. K. 1248.
Rampone, A. J. 748.
Rao, P. N. 12.
Rappaport, C. 1010, 1016, 1022, 1024.
Redding T. W. 718, 726.
Reeser, F. 8.
Reinecke, R. M. 1049.
Reinhart, H. 1264.
Reisfeld R. A. 508.

Reite, O. B. 1212.
Remington, J. S. 357.
Renaud, S. 452.
Rennels, D. 1250.
Richards, E. A. 1235.
Richmond, C. R. 664.
Ricketts, C. R. 770.
Riley, E. M. 322.
Risser, N. 294.
Robert, A. 992.
Roberts, D. K. 1200.
Robinson, R. Q. 193.
Rodbard, S. 902.
Roe, J. H. 708.
Roeder, E. M. 514.
Roffler, S. A. 780.
Rose, N. R. 888.
Rosenthal, H. L. 1117.
Rosenthale, M. E. 1075.
Roy, A. K. 894.
Rugh, R. 714.

Saifer, A. 739.
St. Pierre, R. L. 1300.
Sakiz, E. 921.
Sanders, A. P. 32, 34, 1203.
Sanesi, E. 1039.
Santos-Martinez, J. 1049.
Sarett, H. P. 153, 1244.
Sassoon, H. F. 30.
Sauberlich, H. E. 816.
Sawyer, C. H. 370.
Schaffner, F. 1200.
Schalch, D. S. 1279.
Schally, A. V. 718, 726.
Scharff, T. G. 475.
Schell, K. 41.
Schierman, L. W. 137.
Schmaeler, M. 253.
Schmidt, N. J. 243, 1268.
Schneider, D. L. 1244.
Schneyer, C. A. 96.
Schultz, A. 1107.
Schwab, J. H. 250.
Scott, M. L. 908.
Scott, W. 1045.
Scroggs, R. A. 685.
Sears, D. A. 111, 116.
Sedvall, G. 699.
Selle, W. A. 150.
Seraichekas, H. R. 601.
Seward, C. R. 850.
Shah, E. 19.
Shah, K. V. 303.
Shapiro, O. 577.
Shibata, S. 274.
Shields, C. E. 186.
Shif, I. 829.
Shils, M. E. 729.
Shima, K. 55.
Shorb, M. S. 1070.
Shorter, R. G. 468, 1094.
Sieker, H. O. 722.
Sigel, M. M. 1169.
Simmons, D. J. 1165.
Simpson, C. F. 633.
Singer, S. H. 181.
Singh, H. 82.
Skaredoff, L. 714.
Smith, E. 547.
Smith, K. L. 72.
Smith, R. D. 209.
Smith, S. B. 1005.
Smulow, J. B. 1294.
Snellbaker, L. F. 630.
Spatz, M. 417.
Spitznagel, J. K. 250.
Spritz, N. 147.
Stahmann, M. A. 458, 463.
Stanley, N. F. 90.
Stansly, P. G. 363.
Stattelman, A. 505.
Steggerda, F. R. 1235.
Steinetz, B. G. 1175.
Stern, B. 869.
Stinnett, H. O. 954.
Stohlman, F., Jr. 652.
Stokes, J., Jr. 1264.
Stokstad E. L. R. 19.
Strandberg, K. 699.
Straw, R. N. 857.
Stuart, D. G. 547.
Stucki, W. P. 695.
Sugiyama, H. 278.
Sulman, F. G. 873.
Suzuki, M. 455.
Swan, K. G. 840.
Swartz, M. N. 677.
Sweeney, E. A. 880.
Swell, L. 1290.
Swim, H. E. 1142, 1147.
Swingle, A. J. 589.
Swingle, W. W. 589.
Sylber, C. K. 165.
Szepsenwol, J. 168.

Takano, K. 455.
Takemoto, K. K. 670.
Taleisnik, S. 996.
Tamimi, T. 1133.
Tanz, R. D. 853.
Tate, C. 597.
Taylor, D. O. N. 648.
Taylor, M. K. 298.
Telford, I. R. 800.
Tendler, M. D. 1140.
Tepper, S. A. 1162.
Thoa, N. B. 267.
Thomas, J. J. 212.
Thompson, C. R. 785.
Thompson, J. C. 545.
Thornton, P. A. 1248.
Tiemeier, O. W. 85.
Timiras, P. S. 1210.
Tobian, L. 340.
Tomatis, M. E. 996.
Toney, J. C. 642.
Trentin, J. J. 405, 1216.
Triftshauser, C. 1082.
Turner, C. W. 203, 752, 803, 1056, 1239.
Turner, H. C. 41.
Tytell, A. A. 377.

Ulvedal, F. 1200.
Ungar, A. L. 1098.
Ungar, G. 1098.

Vaeth, J. M. 161.
Vahouny, G. V. 923.
Valeriote, F. A. 1275.
Van Hoosier, G., Jr. 405.
Varnell, T. R. 524.
Varrady, P. D. 592.
Vasington, P. J. 824.
Vaughan, G. 850.
Vernadakis, A. 1210.
Veronelli, J. A. 1223.
Vogin, E. E. 1045.
Vohra, P. 422.
von Kaulla, K. N. 46.
Vos, O. 885.
Vosika, G. J. 1133.

Wagle, S. R. 15, 1297.
Wainer, A. 212.
Waksman, B. H. 1005.
Walker, B. E. 911.
Walker, N. E. 1260.
Waller, G. R. 685.
Walters, M. N.-I. 90.
Walton, R. P. 272.
Warren, J. 1250.
Watson, J. I. 216.
Way, L. W. 963.
Webb, R. E. 19.
Wegrzyn, C. A. 1179.
Wehr, R. F. 349.
Weibel, R. E. 1264.
Weinberg, A. N. 677.
Weis, P. 1135.
Weisbroth, S. H. 795.
Wenk, E. J. 301.
West, L. R. 1155.
Weswig, P. H. 780.
Whiteside, C. H. 153.
Wiesner, W. R. 523.
Williams, M. A. 772.
Williams, W. L. 396.
Wilson, B. W. 954, 1260.
Wintrobe, M. M. 1085.
Wise, E. M., Jr. 982.
Wolf, R. C. 986.
Woodhall, B. 32.
Wooles, W. R. 399.
Worm-Petersen, J. 24.
Wostmann, B. S. 1111.
Wright, L. D. 265.
Wurtman, R. J. 267.
Wust, C. J. 286.

Yagasaki, O. 278.
Yakovac, W. C. 757.
Yakulis, V. 812.
Yamamura, H. 455.
Yarwood, E. A. 390.
Yasika, K. 1188.
Yeh, S. D. J. 729.

Yokoyama, A. 370.
Yoshida, K. 72.
Yunis, A. A. 327.

Zaki, F. G. 918.
Zaret, B. L. 1155.
Zarrow, M. X. 612.
Zeya, H. I. 250.
Ziff, M. 638.
Zilversmit, D. B. 319.
Zolovick, A. 88.
Zweifach, B. W. 619.
Zwickey, R. E. 428.

SUBJECT INDEX

VOLUME 121

(*The numerals indicate the page*)

Acid, amino, blood plasma, age. 349.
    di-, canavanine, cell proliferation inhibition. 1220.
    excessive intake. 695.
    methionine, atherosclerosis, thrombosis. 452.
    serine, D-, amino-aciduria. 982.
    sulfur, dystrophy. 908.
    tyrosine, iodothyronine biosynthesis *in vitro*. 573.
  fatty, free, liver disease. 876.
      reserpine, glycogen. 330.
    hepatic oxidation. 319.
    hydroxy, absorption. 294.
    platelet aggregation. 82.
    synthesis, intestine. 322.
  hippuric, benzoic acid toxicity, folic acid vitamin B_{12} effects. 19.
  lithocholic, dietary. 816.
  piperazinecarboxylic, influenza virus, mice. 65.
      tissue culture. 68.
  RNA cut-off, interferon. 53.
    metabolism, interferon, infected cells. 630.
  salicyluric, excretion kinetics. 861.
  taurine metabolism, mongoloids. 212.
  uric, human sweat, mongoloid. 270.
Adrenal cortex, glucocorticoids, plasma volume 589.
    17-OHCS, pregnancy, monkey. 986.
  gland excision, circulatory collapse, splanchnic neurectomy. 1103.
    hepato-carcinogenic diet. 1067.
  medullary granules, spontaneous amine release. 1179.
Adrenogenital syndrome, 3 β-enzyme inhibition. 757.
Age, amino acids, blood plasma. 349.
  thyroid hormone secretion rate. 203.
Altitude, thyroxin synthesis. 1256.
Amines, cecum wall, germfree rats, 699.
  spontaneous release, adrenal medullary granules. 1179.
Anaphylactoid reaction, dextran, rat. 272.
Anesthesia, pentobarbital, indocyanine green. 1045.
Antibiotic, actinomycin D inhibition, calcium transport, vitamin D. 312.
  antimitotic, liver replicating cells. 1155.
  mithramycin, virus inhibition. 209.
  polymyxin B, histaminase. 394.
  tetracycline, protein synthesis. 729.
  Tylosin, PPLO-infected cells. 1009.
  see also **Puromycin.**
Antibody, cell-associated, endotoxin cytotoxicity. 449.
  detection, assay, laboratory animal sera. 1268.
  formation, endotoxin-tolerant mice. 1228.
    secondary 19-S. 107.
  guinea pig, separation. 508.
  hemolytic anti-protein. 514.
  iso-, cytotoxic, immunologic enhancement. 833.
    molecular weight differences. 137.
  neutralizing SV40, human serum. 303.
  production impairment, neonatal rabbit thymus. 1300.
  release, cells, microclasmatosis. 782.
  response, serum, sarcoidosis. 638.
  salivary hemagglutinins. 130.
  synthesis *in vitro*. 489.
  tests, rhinovirus vaccines. 1264.
Antigen, adenovirus soluble, antigenicity. 240.
  -adjuvant, adrenalectomy, EAE, passive transfer. 301.
  common enterobacterial, immunofluorescence. 230.
  complement fixing, rubella virus. 243.
      soluble. 1223.
    viral, concentration. 41.
  dose, germinal centers. 286.
  hay, farmer's lung. 458, 463.
  I-, erythrocytes. 812.
  kidney, adjuvant nephritis. 216.
  release, homotransplanted kidneys. 963.
Aorta, calcium, cardiac glycoside. 274.
  cholesterol flux, nephrosis. 438.
  ruptures, stilbestrol, NaCl, turkeys. 633.
Atherosclerosis, methionine. 452.
ATP concentration, hyperbaric oxygenation. 32.
  liver, ethanol ingestion. 681.

Bacterium, antibacterial action, PMN lysosomes. 250.
  Escherichia coli, bacteriophage typing. 259.
  L forms, membrane filters. 334.
  virulence, strangulation obstruction. 551.
Bile acid binding cholestyramine, hypocholesteremic. 153.
  $S^{35}O_4$ incorporation, chick. 414.
Birth weight, serum insulin. 55.
Blood, brain temperatures, primates. 547.
  cells, vitamin B_{12}, rat. 1047.
  chemical changes, stress. 223.
  chloroleukemia, fetal transfer. 441.
  $Co^{60}B_{12}$ distribution. 1117.
  coagulation, factor VIII, fibrinogen. 1001.
  erythrocytes, ATPase. 327.
    pyrophosphatase, newborn. 536.
    sheep, storage effect. 186.
  erythropoiesis, hypoxia, newborn rats. 652.
    renin, angiotensin II, aldosterone. 1152.
  erythropoietin, pregnancy, lactation, mouse. 1077.
  flow bradykinin. 932.
  granulocytosis-promoting factor, strain differences. 1231.
  growth hormone-releasing factor. 1114.
  hematin-binding, clearance, plasma, monkey. 111.
  hemoglobin binding, haptoglobin chains. 846.
    renal arteriovenous concentrations. 1049.
  hemolysis, passive immune. 514.
  ketone bodies, free fatty acids. 319.
  leukemia, germfree rats. 585.
    host response, gene control. 1090.
    thymectomy, newborn rats. 648.
    virus, murine, immofluorescence. 72.

  leukocyte, human pyrogen, rabbits. 943.
    uptake inhibition, endotoxin, serum components. 541.
  level, guanine nucleotides, stress. 104.
  lymphopenia, antilymphocyte serum, rat. 722.
  macrocytosis, splenectomy. 709.
  neutrophil kinetics, vinblastine sulfate, nitrogen mustard. 1085.
  oxygenation, liquid inhalation. 703.
  plasma, amino acids, age. 349.
  platelet agglutination, bound insulin concentrates. 880.
    aggregation, fatty acids. 82.
  PMN lysosomes, cationic proteins, density gradient electrophoresis. 250.
  pressure, sinoaortic denervated rabbits. 766.
  sugar FFA, isoxazole response. 777.
  thrombosis, methionine. 452.
  transfusion reaction, plasma hemoglobin, rhesus monkey. 116.
Bone, acid phosphatase, PTE, heparin. 1052.
  collagen metabolism, oxygen tensions. 869.
  fluoridated, tissue effect. 1031.
  marrow quantitation, mouse. 793.
  mineral, vitamin D deficiency. 844.
  vitamin C, D. 1248.
Bradykinin, vasomotor effects. 932.
Brain, allergic encephalomyelitis, adrenalectomy. 301.
  arterial blood, temperature gradients. 547.
  cortical afterdischarge, cats, rabbits. 857.
  encephalomyelitis, allergic, adrenalectomy. 301.
    EEG. 1075.
  gangliosides, Tay-Sachs' disease. 739.
  hypothalamus, CRF, purification. 8.
    TRF, pig. 718.
  liver, kidney, rat, ATP concentration. 32, 34.
  thalamic relays, lingual modalities. 527.
Burns, molecular permeability. 779.
  thermal, x-irradiation, early mortality. 1275.

Calcium, bone, vitamins. 1248.
  hypertensive arterioles. 340.
  magnesium clearance, urea saline diuresis. 592.
  ouabain, aorta. 274.
  potassium uptake, frog stomach muscle. 1280.
  transport, vitamin D effect, actinomycin D inhibition. 312.
Cancer, carcinogenic glycoside, cycasin. 417.
  chloroleukemia, fetal transfer. 441.
  hepato-carcinogenic diet, adrenal glands. 1067.
  human, virus sex-segregated mice. 428.
  malignant cell proliferation inhibition, canavanine. 1220.
  production, cholesterol, mice. 168.
  thymectomy, newborn rats, Moloney virus. 648.
Carbohydrate, biotin deficiency, mouse. 472.
Catecholamines depletion, reserpine, heart. 853.
Cations, *in vitro* lipolysis. 980.
Cell, A-12 infected, immunofluorescence. 405.
  aggregation, mammalian, intercellular matrix. 1025.
  avian, *in vitro,* chemical toxicity. 1260.
  culture, diploid, RS virus. 205.
    LDV propagation. 1147.
    macrophage, MHV-2 virus, plaque formation. 829.
    multiple virus infection. 562.
    thymus, human. 236.
    thyroid, loss of characteristics. 888.
  deoxyribonuclease, rabbit leukocytes. 677.
  -dispersing, fetal liver, radiation protection. 958, 961.
  growth, interferon. 50.
  mast, tissue lipase. 864.
  melanocyte-stimulating hormone-releasing factor, purification. 996.
  microclasmatosis, antibody release. 782.
  pineal, proliferation, mouse. 911.
  proliferation inhibition, canavanine. 1220.
  uninfected, interferon. 53.
  washing, interferon persistence. 1041.
Cerebrospinal fluid binding, cobalamins. 24.
Cesium metabolism, rat, ferric ferrocyanide. 664.
Chlorine, absorption, gastric secretion, calves. 291.
Chlorpromazine, milk ejection. 370.
Cholera, gamma globulin. 425.
Cholesterol, carcinogenic effect, mice 168.
  flux, aortic, nephrosis. 438.
  hypercholesteremia, protein metabolism. 12.
  hypocholesteremic steroid, oral. 122.
  lowering, cholestyramine, bile acid binding. 153.
  metabolism, cholestyramine, swine. 1244.
    W-398 effect. 1162.
  serum, dietary fat, thyroidectomized dogs. 1107.
  solubility, oils. 265.
Cholestyramine, cholesterol, bile acid binding. 153.
    metabolism, swine, 1244.
Chromosome puffs, hydrocortisone. 831.
Collagen, bone, synthesis, degradation, oxygen. 869.
  formation estrogen-treated mice. 1165.
Complement fixing viral antigens, concentration. 41.
  hemolytic, amphibia. 1158.

Desferrioxamine methansulfonate, glucose uptake. 1039.
Diet, biotin deficiency, carbohydrates, mouse. 472.
  carbohydrate, serum proteins. 524.
  cholesterol, carcinogenic, mice. 168.
  cirrhosis, strain susceptibility. 569.
  fat, serum cholesterol, thyroidectomized dogs. 1107.
  fatty acids, platelet aggregation. 82.
  folic acid, vit. B_{12}, hippuric acid excretion. 19.
  hepato-carcinogenic, adrenal glands, liver, rat. 1067.
  hydroxy fatty acids absorption. 294.
  induction, liver G-6-P DH. 30.
    scurvy, norepinephrine binding mechanism. 267.
  lipids, lymph fatty acid composition. 748.
  lithocholic acid, hepatic lipid transport. 816.
  methionine addition, protective. 452.
  sodium chloride, aortic ruptures, stilbestrol, turkeys. 633.
    deficient, renal JGI. 142.
    low, erythropoiesis. 1152.
  soybeans, flatulence. 1235.

  vitamin D deficient, bone mineral. 844.
    E deficient, selenium. 850.
Disease, Friend virus, transmission. 970.
  Tay-Sachs', brain gangliosides. 739.
Dissociation, mouse liver. 1016.
      TPB, temperature effect. 1022.
    tissue. 1016.
Drug, amebicides, *Acanthamoeba* sp. 539.
  analgesic steroidal, MP-2001. 1184.
  angiotensin concentration. 124.
    II, renin, aldosterone, erythropoiesis. 1152.
  Anthramycin, chloroplast bleaching, antitumor principle. 1140.
  anticoagulant, *Rhodactis howesii.* 1063.
  anticonvulsant study, cortical afterdischarge. 857.
  arabinosyl-6-mercaptopurine, hemagglutination. 929.
  chlorcyclizine, hexobarbital-sleeping time, glycogen. 399.
  CPIB, liver lipids. 147.
  DMSO, fish, toxicity, dyes. 1065.
  hypocholesteremic steroid. 122.
  pentobarbital anesthesia, indocyanine green. 1045.
    hypersensitivity. 623.
  phenobarbital, hyperkinesia. 754.
  pilocarpine, sympathetic-like action. 96.
  vinblastine sulfate, nitrogen mustard, neutrophils. 1085.
  W-398, cholesterol metabolism. 1162.
  see also **Antibiotics,** etc., and names of specific drugs.
Dye, indocyanine green, pentobarbital anesthesia. 1045.
  radioactive, uptake, DMSO, fish. 1065.
Dystrophy, genetic, cell culture chick embryo. 954.
  nutritional sulfur amino acids. 908.
    WMD, 5′-nucleotidase. 780.

Edema, dextran, vasodilation, adrenergic block. 494.
Egg, blastodern, spatial changes, storage, 795.
Encephalomyelitis, allergic, adrenalectomy. 301.
    EEG. 1075.
    magnesium deficiency. 1130.
Enzyme activity, lipogenesis. 1125.
    thymus, mouse, x-irradiation. 1120.
  amylase synthesis, thorotrast inhibition, isolated perfused liver. 1122.
  asparaginase, Gardner Lymphosarcoma. 597.
  ATPase inhibition fibrinolysis. 788.
    Na-K-dependent. 327.
  3β-, adrenogenital syndrome. 757.
  catalase, liver, germfree mice. 933.
  cholinesterase, spinal cord development. 1210.
  co-, biotin deficiency, mouse. 472.
      pyruvate metabolism. 15.
  collagenase endogenous tissue. 1082.
  dehydrogenase, lactic, -elevating virus. 1142, 1147.
      rat. 1028.
  malic, acid phosphatase, carrot. 523.
  succinic, lysosomal enzymes, hyperbaric oxygen. 1203.
  deoxyribonuclease, rabbit leukocytes. 677.
  fraction, apotryptophan pyrrolase detection. 298.
  hexokinase, chick embryo heart. 608.
  histaminase release. 394.
  hydrogenase, carbohydrate. 30.
  induction, EPN detoxification. 59.
  lipase, tissue, heparin-activated, mast cells. 864.
      rat. 708.
  lipoprotein lipase. 319.
  5′-nucleotidase, muscle chick, cotton rat, lamb. 780.
  phosphatase, acid, bone, heparin, PTE. 1052.
      lysosomal. 998.
    alkaline, HeLa cells. 165.
    pyro-, erythrocyte, newborn. 536.
  phosphorylase, hepatic, puromycin. 532.
  phosphotransferases, glucose-ATP, liver, mammary gland. 478.
  plasmin, aqueous humor outflow. 139.
  precursor, plasminogen, proactivator, human plasma. 184.
  proteases, graft rejection. 1098.
  renin, renal, sodium state. 142.
  thrombin, trypsin-binding macroglobulin. 444.
  transaminase, aldolase, serum, *Trypanosoma lewisi.* 566
    B_6 deficiency. 27.
    serum glutamic-oxalacetic, exercise. 101.
  trypsin α_1-anti, deficiency, pulmonary emphysema. 1207.
  tyrosinase, goldfish skin. 497.
Eperythrozoon coccoides, sedimentation. 363.
Ethanol, rat liver ATP. 681.
Euglena, Anthramycin sensitivity. 1140.
Exercise, myocardial glycogen depletion. 560.
  oxygen uptake, arterial blood pressure, dogs. 626.
  swimming, SGOT, rats. 101.
Eye, aqueous humor outflow, plasmin effect. 139.

Factor, antihemophilic, fibrinogen separation. 1001.
  chick edema, toxic fat, rat, chick. 1283.
  granulocytosis-promoting, strain differences, mouse tumor. 1231.
  growth-hormone-releasing, blood. 1114.
  MSH-releasing, purification. 996.
  thyrotropic hormone-releasing, hypothalamus. 718.
Fat, carbohydrate metabolism, isoxazoles. 777.
  intestinal, gastric inhibitors. 840.
  lipogenesis, enzyme activity. 1125.
  lipolysis *in vitro,* cations. 980.
    pituitary hormones. 5.
  toxic, chick edema factor, chick, rat. 1283.
Fermentation, yeast 2-deoxy-D-glucose. 475.
Fetus, maternal chloroleukemia. 441.
    hormones, goitrogens. 555.
  x-irradiation, weight, tumor incidence. 714.
Fever, human leukocyte pyrogen, rabbits. 943.
Fibrinolysis, ATPase inhibition. 788.
  synthetic compounds, animal plasma. 46.
Ficoll activated protein, nematode. 390.
Fluoride, bone, tissue response. 1031.

Gas-liquid radiochromatography. 1290.
  production, soybeans, adult man. 1235.
Gastric inhibitors, intestinal fat. 840.
  juice, aldosterone. 913.
  mucosal damage, histamine, rat. 384.
  secretion, isolated frog mucosa, gastrin. 545.
Gastrointestinal radiation syndrome, ileal Sr absorption. 885.
Gene control, host response, leukemia. 1090.
Gland, submandibular, nerve growth factor. 1135.
Globulin difference, chickens, turkeys. 1188.
  gamma, cholera. 425.
  immuno-, guinea pig antibodies, separation. 508.
  macro-, trypsin-binding, thrombin. 444.
Glucose, 2-deoxy-D-, fermentation, yeast 475.
  formation, insulin deficiency, cortisol. 1297.
  penetration, glycogen synthesis, liver slices. 619.
  polymer reactions, rats. 272.
  uptake, DFOM. 1039.
    perfused heart. 923.
Glycogen depletion, myocardial, exercise. 560.
Glycoside cycasin excretion. 417.

Heart, abnormal, prenatal hypoxic stress. 800.
  cardiovascular collapse, adrenalectomy, splanchnic neurectomy. 1103.
  catecholamine depletion, reserpine. 853.
  chick embryo, hexokinase. 608.
  function, canine, exercise. 626.
  intra-atrial masses, growths. 902.
  liver, kidney, failure, oxidative phosphorylation. 657.
  -lung circuits, kidney perfusion. 937.
  myocardium glycogenolysis, exercise. 560.
    thyroid hormone. 691.
  5′-nucleotidase, chick, cotton rat, lamb. 780.
  perfused, glucose uptake. 923.
  rate, low ambient temperature, bat. 1212.
  tamponade, volume conduction, electrocardiograph. 642.
Hemagglutination, arabinosyl-6-mercaptopurine. 929.
  NDV. 433.
Heparin-activated tissue lipase, mast cells. 864.
  PTE, bone acid phosphatase. 1052.
Hibernation, thermoregulation, bat. 1212.
Histamine, gastric mucosal damage, rat. 384.
  release, K^{42} flux. 808.
Homograft, kidney, antigen release. 963.
  skin, protease changes. 1098.
    survival, subcellular fractions. 1133.
Hormone, adrenal corticoids, lactation, rat. 1056.
  aldosterone gastric juice. 913.
  corticotrophin-releasing factor, hypothalamic, purification. 8.
  cortisone induced chromosomal puffs. 831.
  diethylstilbestrol, aortic ruptures, dietary sodium chloride, turkey. 633.
  epinephrine block, vasodilators, dextran edema. 494.
    glucagon. 501.
    release, adrenal medullary granules. 1179.
  estrogen, collagen formation, endochondral ossification. 1165.
    mammary gland, female rat. 1239.
      male rat. 803.
    myotrophic effects. 785.
    oral, transport pathway. 1175.
    plasma, catfish. 85.
      deer. 88.
      pregnancy, dog. 374.
  gastrin, isolated frog gastric mucosa. 545.
  glucocorticoids, plasma volume. 589.
  gonadotropin, chorionic, human, metabolism, rabbit. 235.
    sheep. 482.
  growth, bovine, adipose tissue uptake. 171.
    corticotropin, AIB excretion. 346.
    human, tritiated, rat tissue uptake. 173.
    immunoassay. 62.
    lactogenic, methylcholanthrene tumor. 1241.
    releasing factor, blood. 1114.
  insulin concentrates, bound, platelet agglutination. 880.
    deficiency, cortisol, gluconeogenesis. 1297.
    inhibitor, serum. 227.
    release, epinephrine inhibition. 675.
    serum, birth weight. 55.
    thyroxine secretion, female rats. 752.
  melanocyte-stimulating, -releasing factor, purification. 996.
  norepinephrine binding mechanism, scurvy. 267.
  17-OHCS, pregnancy, monkey. 986.
  pituitary, anterior, separation, electrophoesis. 805.
    lipolysis. 5.
  prolactin spinal cord section, lactation. 366.
  relaxin, corpus luteum localization. 612.
  testosterone, adult urine. 1128.
  thyro-adrenocortical relationship, placental permeability, guinea pig. 555.
  thyroid, lactation. 873.
    myocardium. 691.
    radioactive metabolites, separation. 577.
    secretion, age. 203.
    synthesis, altitude. 1256.
  thyroxin, nephrosis effect. 198.
  TSH, plasma, lability. 921.
    -releasing factor, porcine hypothalamus. 718.
Hydrocephalus, mice, polyoma virus. 1196.
Hydroxykynurenine isomers, metabolism. 253.
Hyperkinesia, phenobarbital. 754.
Hypersensitivity, farmer's lung, antigens. 458, 463.
  latent, pentobarbital. 623.
Hypertension, human artery distensibility. 580.
  renal, calcium, arteriolar walls. 340.
Hypophysis, see **Pituitary.**
Hypothalamus obesity, hypophysectomy. 726.

Immune hemolysis, erythrocyte fragility, sheep. 186.
  mice, adeno-12, tumor transplantation. 1216.
  phagocytosis, lipopolysaccharide inhibition. 133.
  response, toxoplasmosis. 357.
Immunofluorescence, A-12 infected cells. 405.
  common enterobacterial antigen. 230.
  murine leukemia viruses. 72.
Immunologic enhancement, cytotoxic isoantibody. 833.

Inflammation, anti-inflammatory steroid assay. 386.
  tissue collagenase. 1082.
Influenza protection, piperazinecarboxylate, mice. 65.
    tissue culture. 68.
Insecticides, cell growth *in vitro,* chick embryo. 1260.
Interferon, cell growth. 50.
  fish cells. 1169.
  induction, puromycin. 181.
  inhibition, *in vivo,* cytomegalovirus. 819.
  molecular species. 377.
  persistence, cell washing. 1041.
  resistance, non-heritable. 670.
  RNA, cut-off. 53.
    metabolism, infected cells. 630.
  suppression, BVD virus. 976.
Intestine, cecum contents, oxidation-reduction potentials, germfree rats. 1111.
    wall, germfree rats, amines. 699.
  fat, gastric inhibitors. 840.
  fatty acid synthesis. 322.
  ileum, Sr absorption, irradiation. 885.
  propulsion, restrained, unrestrained rat. 989.
  strangulated obstructed, bacterial virulence. 551.
  transmural potentials, bullfrog. 1033.
Iodine, absorption, gastric secretion, calves. 291.
Iodothyronine biosynthesis *in vitro.* 573.
Ion exchange, myelin extract, bovine optic nerve. 1253.
Iron oxide, virus adsorption. 1250.
Isotope see **Radioisotope.**
Isoxazole, blood sugar, FFA. 777.

Kidney clearance, divalent ions, urea-saline diuresis. 592.
  concentrating mechanism solute diuresis. 352.
  enlargement, compensatory, radiation effect. 161.
  glomerulonephritis. 216.
  hemoglobin, arteriovenous concentrations. 1049.
  homotransplanted, antigen release. 963.
  hyperplasia, intact rat. 838.
  nephrosis, aortic cholesterol flux. 438.
    thyroxin effect. 198.
  perfusion, heart-lung circuits. 937.
  renin, sodium. 142.
  transplantation, urinary excretion, uric acid. 1094.
  water diuresis, unilateral vagotomy. 177.

Lactation, milk ejection, chlorpromazine, reserpine. 370.
  mouse, erythropoietin. 1077.
  rat, aldosterone, corticosterone. 1056.
  spinal cord section, prolactin. 366.
  thyroid hormones. 873.
Lipid metabolism, inbred mice. 343.
  transport, hepatic, lithocholic acid. 816.
    lymphatic. 748.
Lipolysis, see **Fat,** lipolysis.
Liver acid phosphatase, rat. 998.
  ATP ethanol ingestion. 681.
  catalase, germfree mice. 933.
  chimpanzee, viral spectrum. 824.
  dietary cirrhosis, strain susceptibility. 569.
  disease, FFA response. 876.
    pyridoxine deficiency. 27.
  fatty acid oxidation. 319.
    ethanol induced, CPIB. 147.
  fetal, radiation protection, mouse. 958, 961.
  function, salicylurate excretion. 861.
  G-6-P DH dietary induction. 30.
  glycogen, reserpine. 330.
    sleeping time. 399.
  hexokinase, glucokinase, mouse. 478.
  homogenates, apotryptophan pyrrolase. 298.
  injury, selenium. 743.
  isolated, perfused, thorotrast inhibition, amylase synthesis. 1122.
  lipids, pyridoxine. 772.
  mouse, dissociation, sodium tetraphenylboron. 1010.
    temperature effect. 1022.
  oxygen effect, monkey. 1200.
  perfusion, rat, metabolism. 281.
  regeneration, antimitotic antibiotics. 1155.
Lung, emphysema, hereditary α_1-antitrypsin deficiency. 1207.
Lymph fatty acid composition, diet lipids. 748.
  pancreas, inflammation. 1.
  tissue, antigen dose. 286.

Magnesium deficiency, allergic encephalitis. 1130.
Mammary gland, estrogen, female rat. 1239.
      male rat. 803.
    mouse, enzymes. 478.
  tumor, methylcholanthrene, hormones, rats. 1241.
      parabiosis effect. 1242.
Methylcholanthrene, tumor induction, hormones. 1242.
    parabiosis. 1242.
Mongolism, children, sweat, uric acid concentration. 270.
  taurine metabolism. 212.
Motion study, radio telemetry, transducer. 505.
Muscle, estrogen effects, rats, mice. 785.
  nutritional myopathies, 5′-nucleotidase. 780.
Mycoplasma growth without serum. 1070.
  on membrane filters. 334.
  PPLO-infected cells, treatment. 1009.

Nematode, *C. briggsae,* protein factor, defined medium, Ficoll. 390.
Nerve growth factor, submandibular glands. 1135.
  optic, bovine, myelin extract, ion exchange. 1253.
Nutrition, Ficoll activated protein. 390.
  myopathies, 5′-nucleotidase. 780.
  sulfur amino acids, dystrophy. 908.

Obesity, hypothalamic, hypophysectomy. 726.
Osteoporosis detection. 150.
Ouabain, calcium interaction. 274.
Oxidation-reduction potentials, cecal contents, germfree rats. 1111.
Oxygen consumption, exercise, dog. 626.
    NADPH oxidation, vitamin K-deficient rats. 1287.
  effect, monkey liver. 1200.
  hyperbaric, ATP concentration. 32.
    isoenzymes, shock. 1028.
    lysosomal enzymes, succinic dehydrogenase. 1203.

oxidative phosporylation. 34.
hypoxia, erythropoiesis, newborn rats. 652.
exposure, thyroxin synthesis. 1256.
prenatal, heart. 800.
oxygenation, blood, liquid inhalation. 703.
tensions, bone collagen synthesis, degradation. 869.

Pancreas lymph, inflammation. 1.
Phagocytosis, immune, lipopolysaccharide. 133.
Phosphate, organo-, EPN, detoxification, enzyme induction. 59.
Phosphorylation, oxidative, congestive heart failure. 657.
Pineal cell proliferation, mouse. 911.
rhythms, monkey. 946.
Pituitary excision, hypothalamic obesity. 726.
ulcer formation. 992.
hormones, lipolysis. 5.
Plasma, animal, fibrinolysis, synthetic compounds. 46.
E. coccoides sedimentation. 363.
estrogens, free, catfish. 85.
deer. 88.
pregnancy, dog. 374.
hematin binding, rhesus monkey. 111.
hemoglobin binding, rhesus monkey, transfusion reaction. 116.
human, plasminogen, proactivator. 184.
proteins, secondary 19-S antibodies. 107.
TSH, lability. 921.
volume, glucocorticoids. 589.
Polysaccharide, lipo-, immune phagocytosis. 133.
Potassium complexing agent, mouse liver dissociation. 1010.
temperature. 1022.
efflux, allergic, cytotoxic reactions. 808.
uptake, frog stomach muscle, calcium. 1280.
PPLO, see **Mycoplasma.**
Pregnancy, erythropoietin, mouse. 1077.
inhibition, decidual cell formation, rabbit. 1194.
17-OHCS, monkey. 986.
plasma estrogens, dog. 374.
Protein antigen, antisera, hemolysis. 514.
Ficoll activation, *C. briggsae.* 390.
identification, rat urine. 894.
lysosomal cationic. 250.
metabolism, hypercholesteremia. 12.
nerve growth factor, mouse submandibular glands. 1135.
ricin, toxicity. 685.
synthesis, tetracycline. 729.
Puromycin, hepatic phosphorylase. 532.
interferon induction. 181.
liver, tumor cells, protein synthesis. 1155.
Pyrogen, human leukocytes, rabbits. 943.
Pyruvate metabolism, biotin deficiency. 15.
Radiation effect, ileal Sr absorption. 885.
renal enlargement. 161.
protection, fetal liver, cultured. 958.
fresh. 961.
Radio chromatography, gas-liquid. 1290.
telemetry, motion study, transducer. 505.
Radioisotope labelling, I^{125}, radioimmunoassays. 1279.
technique, tissue culture. 774.
$S^{35}O_4$ utilization, chick. 414.
Reserpine, catecholamine depletion, heart. 853.
glycogen, free fatty acids. 330.
milk ejection. 370.
Respiratory tract, human, new virus. 190.
Rhythm, 24-hour, monkey pineal. 946.

Saline loading, natriuresis. 1058.
Salivary composition, pilocarpine, sympathetic-like action. 96.
hemagglutinins. 130.
Sarcoidosis, serum antibody response. 638.
Scurvy, norepinephrine deficient binding mechanism. 267.
Selenium metabolism, liver injury. 743.
vitamin E deficiency. 850.
WMD lamb, 5′-nucleotidase. 780.
Serum, anti-lymphocyte, lymphopenia, rat. 722.
insulin, birth weight, human. 55.
inhibitor. 227.
proteins, dietary cardohydrates. 524.
haptoglobin chains, hemoglobin binding. 846.
rat, *T. lewisi,* transaminases, aldolase. 566.
Sex effect, choline deficiency. 918.
Shellfish, quahaug, poliovirus. 601.
Shock, hyperbaric oxygen, isoenzymes. 1028.
Skin, goldfish, tyrosinase. 497.
graft, proteases. 1098.
survival, subcellular fractions. 1133.
test, toxoplasmin. 734.
Sleep, paradoxical sleep, ruminants. 635.
Sodium deoxycholate, measles virus. 948.
excretion, saline loading. 1058.
-potassium dependent ATPase, reticulocytes. 327.
state, renal renin. 142.
Sperm antifertility factor, enzymatic characterization. 396.
Spinal cord development, cholinesterase. 1210.
section, lactation. 366.
Spleen, *E. coccoides.* 363.
excision, macrocytosis. 709.
Steroid, anti-inflammatory, assay. 386.
ethynodiol diacetate, deciduoma induction. 1194.
hypocholesteremic, orally active. 122.
progestogens, teratogenicity. 455.
Stress, blood chemical changes. 223.
guanine nucleotides, blood. 124.
Strontium, ileal absorption, irradiation. 885.
Sweat, mongoloid, uric acid. 270.

Teeth, gingiva, adult human, cell culture. 1294.
periodontal diseases, gingival tissue, collagenase. 1082.
selenium, vitamin E deficiency. 850.
Temperature, low ambient, bat. 1212.
Teratogenesis, prenatal hypoxic stress, heart. 800.
synthetic progestogens. 455.
Testis fluid, rat, biochemical composition. 899.
Thymus cell culture. 236.
enzyme activity, x-irradiation, mouse. 1120.
grafting, tolerance. 1005.
neonatal rabbit, no antibody producing capacity, bursectomized chiken. 1300.
removal, leukemia, rats. 648.
Walker 256 tumor, mice. 468.
Thyroid cells, cultured, characteristics. 888.
hormone, see **Hormone,** thyroid.

- **Thyroidectomy,** dietary fat, serum cholesterol. 1107.
- **Tissue,** adipose, growth hormone uptake. 171.
  - adult mouse, dissociation. 1016.
  - culture, bone collagen synthesis, degradation. 869.
    - canavanine, proliferation inhibition. 1220.
    - carrot. 523.
    - epithelial-like cell line, gingiva. 1294.
    - HeLa cells, alkaline phosphatase. 165.
    - isotope labelling technique. 774.
    - latent infection, fish cells. 1169.
    - monkey kidney, non-specific hemadsorption. 193.
    - phosphate buffered medium. 954.
    - PPLO-infected cells, treatment. 1009.
  - lipase content, rat. 708.
    - mast cells. 864.
  - repsonse, fluoridated bone. 1031.
  - uptake, rat, guinea pig, labeled human growth hormone. 173.
- **Tolerance,** thymus grafting. 1005.
- **Tongue,** modalities, thalamic neurons, cat. 527.
- **Toxicology,** indocyanine green. 1045.
  - ricin. 685.
- **Toxin,** endo-, bacterial, vomiting. 278.
    - cytotoxicity. 449.
    - radioactive, leukocyte uptake, normal serum. 541.
    - tolerance, antibody formation, mice. 1228.
- **Toxoplasmosis,** immune response, diagnosis. 357.
  - toxoplasmin skin test. 734.
- **Tumor,** anti-, principle, Anthramycin, *E. gracilis*. 1140.
  - cells, antibody-coated, cytotoxic activity. 833.
    - electrophoretic mobility. 1155.
  - incidence, x-irradiated fetus. 714.
  - induction, adenovirus 7-SV40 hybrid. 486.
    - deciduoma, synthetic progestogen. 1194.
  - lymphoma, reovirus. 90.
      - electron microscopy. 93.
  - lymphosarcoma, Gardner, asparaginase. 597.
  - mammary, methylcholanthrene, growth, lactogenic hormone. 1241.
      - parabiosis effect. 1242.
  - mouse, GPF, strain differences. 1231.
  - transplantable, lactic dehydrogenase-elevating virus. 1142.
  - transplantation immunity, human A-12 virus, hamster, mouse. 1216.
  - Walker 256, thymectomized mice. 468.

- **Ulcer** formation, hypophysectomy. 992.
- **Urine,** amino-aciduria, D-serine. 982.
  - concentration, saline loading. 352.
  - excretion, AIB, growth hormone, corticotropin. 346.
  - salicyluric acid. 861.
    - sodium, saline loading 1058.
    - uric acid, reciprocal renal transplantation. 1094.
  - protein identification, rat. 894.
  - testosterone sulfate. 1128.
- **Uterus,** decidual tissue formation, ethynodiol diacetate. 1194.
- **Vascular** system, arterioles, hypertensive, calcium. 340.
    - artery distensibility, human hypertension. 580.
    - sinoaortic denervated rabbits, low arterial pressure. 766.
    - see also **Aorta.**
- **Virus,** A-1, A-2, neutralizing antibody, persistence. 240.
  - A-7, -SV40 hybrid. 486.
  - A-12, human, transplantation immunity, tumors, hamster, mouse. 1216.
    - immunofluorescence, infected cells. 405.
  - adsorption, iron oxide. 1250.
  - anti-, ammonium picrate, *in vivo* effect. 262.
  - antigens, complement fixing, concentration. 41.
  - BVD, strain interference. 976.
  - Coxsackie B1 replication, mice. 941.
  - cytomegalo-, mouse, interferon. 819.
  - detection, non-specific tissue hemadsorption. 193.
  - ECHO 4, enteroviruses, gel precipitation. 307.
  - Friend, disease transmission. 970.
    - liver catalase, splenomegaly. 933.
    - resistance. 1090.
  - hepatitis, infectious canine, cytopathic changes. 157.
    - mouse, plaque formation, macrophage cultures. 829.
  - human cancer, tests, mice. 428.
  - influenza, piperazinecarboxylate, mice. 65.
      - tissue culture. 68.
  - inhibition, mithramycin. 209.
  - interferon, cell metabolism. 50.
    - resistance, non-heritable. 670.
  - LDV, propagation, cell culture. 1147.
    - transplantable murine tumors. 1142.
  - leukemia, germfree rats. 585.
    - Moloney, thymectomy, newborn rats. 648.
    - murine, immunofluorescence. 72.
  - measles, sodium deoxycholate. 948.
  - multiple infection, cell culture. 562.
  - new, respiratory tract. 190.
  - Newcastle disease, hemagglutination. 433.
  - parainfluenza 2, Tween-80, ether. 109.
    - 3, human, bovine, gel diffusion. 966.
  - polio quahaugs. 601.
  - polyoma, hydrocephalus, mice. 1196.
  - reo-, lymphoma production. 90.
      - electron microscopy. 93.
    - microneutralization test. 1268.
  - rhino, feeding, immunization. 1264.
    - serologic relationships. 615.
  - RS, adaptation, mouse brain. 37.
  - RS, diploid cell culture. 205.
  - rubella, complement-fixing antigen. 243.
      - soluble. 1223.
  - spectrum, chimp liver. 824.
  - SV40, neutralizing antibodies, human sera. 303.
  - WEE, attenuated, *Culex tarsalis* infection. 402.
- **Vitamin** B complex, biotin deficiency, mice. 472.
      - pyruvate metabolism. 15.
    - choline deficiency, sex effect. 918.
    - folic acid, vitamin B_{12}, hippuric acid formation. 19.
    - niacin precursor, hydroxykynurenine. 253.

B_6 deficiency, transaminase. 27.
  liver sterol. 772.
B_{12}, cobalamins, CSF binding. 24.
  radioactivity distribution, blood. 1117.
  rat cells. 1047.
D deficiency, bone mineral. 844.
  effect, calcium transport, actinomycin D inhibition. 312.
D_3 deficiency, ascorbic acid, bone. 1248.
E deficiency, selenium. 850.
K deficiency, rat, oxygen consumption, NADPH oxidation. 1287.

Weight, molecular, chicken isoantibodies. 137.

X-irradiation, fetal liver, cultured. 958.
  fetal liver, fresh. 961.
  fetus, weight, tumor incidence. 714.
  thermal burn, mortality. 1275.
  thymus, enzyme activity, mouse. 1120.

Zinc complexes, formation constants, ion-exchange. 422.

Council 1965-66

President, D. J. Ingle
University of Chicago

Vice-President, M. B. Visscher
University of Minnesota

Secretary-Treasurer, W. S. Root
Columbia University

G. H. Acheson
Univ. of Cincinnati

R. B. Alfin-Slater
Univ. of California
Los Angeles

A. G. Bearn
Rockefeller Inst.

W. D. Block
Univ. Michigan

S. E. Bradley
Columbia Univ.

S. G. Bradley
Univ. Minnesota

E. Dobson
Univ. of California
Berkeley

E. A. Doisy, Jr.
St. Louis Univ.

H. Eagle
Albert Einstein College
of Med.

J. F. Enders
Harvard Univ.

E. Farber
Univ. of Pittsburgh

D. F. Flick
Food and Drug Admin.

P. M. Hyde
Louisiana State Univ.

S. Katsh
Univ. of Colorado

H. A. Kornberg
Pacific Northwest Lab.

J. L. Melnick
Baylor Univ.

W. S. Newcomer
Oklahoma State University

Y. T. Oester
Loyola Univ.

D. Pressman
Roswell Park Memorial
Inst.

A. F. Rasmussen
Univ. of California
Los Angeles

R. F. Schilling
Univ. of Wisconsin

B. A. Schottelius
State Univ. of Iowa

R. L. Shirley
Univ. of Florida

D. W. Watson
Univ. of Minnesota

L. Weiss
Johns Hopkins University

E. Wolinsky
Metropolitan Gen. Hosp.
Cleveland, O.

D. W. Woolley
Rockefeller Inst.

W. B. Youmans
Univ. of Wisconsin

Board of Editors

W. S. Root
Managing Editor
630 W. 168th Street
New York 32, New York
212 WA-7-6914

H. J. Almquist
E. Alpen
L. M. N. Bach
L. S. Baron
H. L. Borison
G. Brecher
G. M. Briggs
E. B. Brown, Jr.
V. H. Cheldelin
H. J. Curtis
R. I. Dorfman
H. H. Draper
H. W. Elliott
J. D. Feldman
H. I. Firminger
J. K. Frenkel
W. F. Ganong
R. Greep
J. J. Holland
E. Jawetz
R. J. Jones
G. Kalnitsky
H. S. Kaplan
C. A. Krakower
M. Laskowski, Sr.
H. D. Lauson
H. S. Lawrence
J. H. Leathem
E. H. Lennette
R. Menguy
J. W. Miller
H. R. Morgan
J. L. Orbison
A. Osler
Lewis S. Schanker
M. L. Scott
P. Shubik
T. H. Spaet
F. Stohlman, Jr.
R. V. Talmadge
I. Tamm
H. Tarver
A. C. Upton
R. R. Wagner
E. Leong Way
S. C. Werner
W. L. Williams

Editorial and Publications Committee

M. McCarty, '70, *Chairman;* K. Habel, '69; W. Cutting, '68;
A. D. Welch, '67; R. T. Clarke, Jr., '66
The President, Vice-President and Secretary

SUGGESTIONS TO AUTHORS

1. When manuscript is submitted it is assumed that *no other,* based on the same research, has been published previously, nor will be published simultaneously.

2. a. Manuscripts should be as *concise* as possible, yet *sufficiently* detailed to permit critical appraisal.

   b. Manuscripts should be *double* or *triple* spaced.

3. Manuscripts of *non-experimental* researches, or those with *inadequate controls* are not acceptable.

4. *Unnecessary subdivision* of a research into several manuscripts is not acceptable.

5. a. Manuscripts devoted to *improvement of procedure or of apparatus* may be accepted when a new principle is involved or when decidedly superior biological results are obtained. Evidence of such superiority should be given.

   b. *Confirmatory* or *negative* reports may be accepted only when they are of obvious biological significance.

6. Length of manuscripts averages 3 printed pages, including tables, charts, bibliography. Beyond this length, to 10 printed pages only by approval of Editors.

7. *Title* limited to 15 words.

8. *Conclusions* should be based upon the experimental data submitted.

9. a. *Illustrations.* Descriptive matter should not extend beyond the curves. Avoid large blank spaces.

   b. Explanations and numbers should be legible after reduction of Figure to one column.

   c. Drawings should be on white or blue tracing paper. Figures and drawings should be in black India ink, not typewritten.

   d. Half-tone Figures should be sharply contrasted, on white glossy paper.

   e. Illustrations larger than manuscript should be accompanied by smaller photograph.

   f. Illustrations should be grouped to fit printed page.

10. *Tables* should have concise heading, should be as simple as possible, and arranged preferably for vertical position for single or double column. For identical values use ditto marks, for similar phrases use "idem."

11. a. Only essential *citations* should be submitted, and arranged numerically at end of manuscript.

    b. Reduce number of citations by reference to recent reviews.

    c. "Personal communication," "unpublished," numerous abstracts should be excluded from bibliography. If manuscript has been accepted for publication, include it in bibliography, giving journal, year, etc. If *not accepted do not include it* in bibliography.

12. *Duplication* of table, graph and text is not acceptable.

13. *Trade* or *popular name* or *abbreviation* of a chemical may be used only when preceded by chemical or scientific name. Thereafter any of these names or abbreviations may be used. Trade name should begin with a capital letter.

14. *Structural formulae* of chemicals should be reduced to absolute minimum.

15. The Proceedings is copyrighted.

16. a. Authors are expected to discourage circulation of reprints for commercial purposes.

    b. *Reprints* are limited to 1300.

17. Changes in *galley proof* should be absolutely minimal. Excessive changes are charged. Galley proof of non-member's article is sent to sponsor.

18. *Sponsor* is held responsible for non-member's manuscript. Sponsor should write stating (a) how familiar he is with the author and his research, (b) whether author is scientifically reliable, (c) that manuscript conforms to "Suggestions to Authors," (d) that he has *critically* examined the manuscript, (e) wherein the manuscript is a significant contribution to science, and (f) that he assumes financial responsibility involved. Sponsor should be in the same laboratory or recent past laboratory as the author. Where not of the same or recent past laboratory, he should specify why such letter comes from a member at another laboratory.

Notify the General Secretary at least one month *before change of address.*
Editorial office is closed during August.

IF YOU USE VIRAL REAGENTS IN YOUR WORK

IF YOU WANT QUALITY YOU CAN DEPEND ON

. . . then you ought to know about these new products now available from Microbiological Associates

30-958F	Rubella CF Antigen (minimum titer 1:8)
30-959F	Control Antigen for Rubella CF Antigen
30-960	Human Reference Serum for Rubella CF Test
80-100	Complement-Fixation Testing Service for Rubella Antibodies (Complement-fixation tests performed on serum specimens starting at a 1:4 dilution against four antigen units. End-points will be determined.)
30-963	Mycoplasma pneumoniae (Eaton Agent) CF Antigen
30-964	Control Antigen for mycoplasma pneumoniae CF Antigen
30-966	Poliovirus Type 1 Hyperimmune Monkey Serum for CF Test
30-967	Poliovirus Type 2 Hyperimmune Monkey Serum for CF Test
30-968	Poliovirus Type 3 Hyperimmune Monkey Serum for CF Test
30-969	Para-influenza Type 1 HA Antigen
30-972	Control Antigen for Para-influenza Type 1 HA Antigen
30-970	Para-influenza Type 2 HA Antigen
30-973	Control Antigen for Para-influenza Type 2 HA Antigen
30-971	Para-influenza Type 3 HA Antigen
30-974	Control Antigen for Para-influenza Type 3 HA Antigen
30-975	Para-influenza Type 1 HI Antisera (Rabbit)
30-976	Para-influenza Type 2 HI Antisera (Rabbit)
30-977	Para-influenza Type 3 HI Antisera (Rabbit)

ALSO AVAILABLE:

26-230	Yeast Extract (Fresh, filtered)

TO GET COMPLETE INFORMATION PLEASE WRITE OR CALL:

MICROBIOLOGICAL ASSOCIATES, INC.
4813 BETHESDA AVENUE • BETHESDA, MD. 20014 • PHONE: 301 OLiver 4-3400